M/037/088
Doug
Paul
PIC

LISBON VALLEY MINING CO

March 1, 2006

Mr. Frank Bain
US Bureau of Land Management
82 East Dogwood
Moab Utah 84532

Re: **2005 Waste Rock Monitoring Report**. Lisbon Valley Mining Company LLC. 920 South County Road 313, La Sal, Utah, 84530.

Dear Frank:

This Waste Rock Sampling Report (the 2005 Report) has been prepared in accordance with the Lisbon Valley Mining Co (LVMC) 2005 Waste Rock Sampling Plan (the Sampling Plan).[1] The 2005 Report documents waste rock characterization, handling, encapsulation, and pit bench mapping at the Lisbon Valley Mine (the Mine) in 2005.

The scope of work included the following.

- Waste rock sampling and analysis.
- Waste rock handling encapsulation.
- Waste dump mapping.
- Pit bench mapping

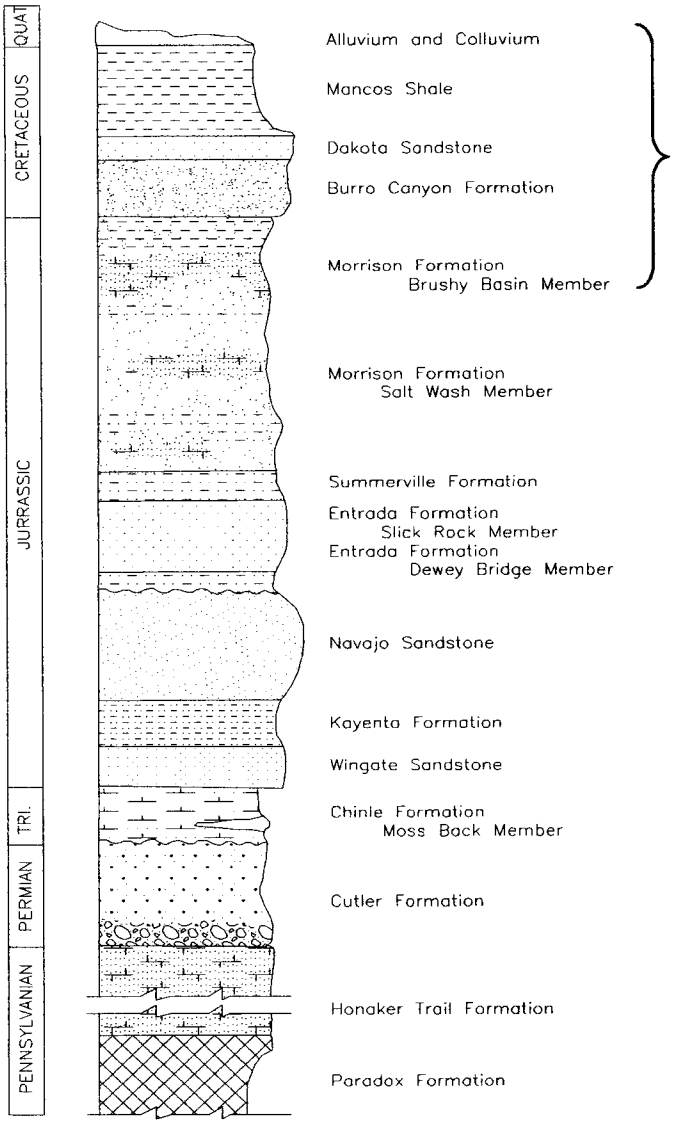
Background

Copper mineralization at the Mine is primarily comprised of oxide ore which occurs in the Cretaceous Burro Canyon Formation and Dakota Sandstone. Sulfide ores occur where these beds are buried under Quaternary alluvium and Cretaceous shale. The Mine stratigraphy is subdivided into 17 specific sedimentary beds.[2]

---

[1] LVMC 2005 Waste Rock Sampling Plan. Lisbon Valley Mining Company LLC. 20 December 2005
[2] Beaty D. 1975. Stratigraphy in the Centennial Pit Area. Appendix 2 5pp. from Summo USA, Corp.internal files

Figure 1 provides a general description of Mine stratigraphy relative to the generalized section of sedimentary rocks exposed in the La Sal Utah Quadrangle.



Lithology	Bed Number
Quaternary Alluvium	1
Mancos Formation	2
Upper Dakota Sandstone	3, 4, 5
Dakota Sandstone, coaly beds	6, 7, 8
Dakota Sandstone, shaley beds	9, 10
Lower Dakota Sandstone	11, 12, 13
Burro Canyon Formation	14
Burro Canyon Formation	15
Morrison Formation	17

Figure 1
La Sal Stratigraphy and LVMC Bed Nomenclature

Beds 1-15 are grouped into seven rock types based on lithology and acid generation potential (AGP). The rock type groupings are visibly discernable by Mine personnel, which ensures proper handling of waste rock with AGP. Rock type designations are listed in Table 1.

Specific Lithology	Bed Number	Acid Generation Potential	Rock Type Designation
Quaternary Alluvium	1	-	1
Mancos Shale Formation	2	-	2
Upper Dakota Sandstone	3, 4, 5	-	3
Dakota Sandstone, coaly beds	6, 7, 8	+	4
Dakota Sandstone, shaley beds	9, 10	+	5
Lower Dakota Sandstone	11, 12, 13	-	6
Burro Canyon Formation	14, 15	-	7
Navajo Sandstone.[3]	NA	-	8

Table 1
LVMC Rock Type Designations

[3] Navajo Sandstone was not included in the original 1975 division of sedimentary beds. It was added as a waste rock type since it was stripped from the west side of the Centennial pit. It is assumed to have strong acid neutralization potential, and will be analyzed in 2006.

2005 Mining Activities

The LVMC mined approximately 3520 kilotons (kt) of waste rock from three pits in 2005. Approximately 2838 kt were mined from the Centennial pit, 401 kt were mined from the Sentinel West pit, and 281 kt were mined from the Sentinel East pit.

Waste Rock Sampling and Analysis

In accordance with the Sampling Plan, waste rock samples were comprised of laboratory pulps split from blast hole samples and composite bulk samples.

Blast hole samples were collected for acid/base accounting (ABA). The LVMC laboratory makes ABA determinations using a sodium hydroxide back titration procedure.[4] Composite bulk samples were collected to identify the potential dissolution of metals. ACZ Laboratories analyzed these samples in accordance with the Meteoric Water Mobility Procedure (MWMP).[5] The MWMP evaluates the dissolution of antimony, arsenic, uranium, cadmium, copper, molybdenum, selenium, and zinc by meteoric water.[6]

Sampling Locations

The Sampling Plan identifies nine "standard" waste rock sampling locations; two in the Sentinel West pit, two in Sentinel East pit, and five in Centennial pit.[7]

In 2005, active mining was conducted in three sampling locations, #2 in Sentinel West, #2 in Sentinel East, and #1 in Centennial. Samples were collected from each rock type mined in each of the pits closest to the "standard" sampling location. Standard sampling locations are identified in Table 2 and shown in Figures 2 and 3.

---

[4] EPA 1995. Available neutralization potential in mine samples by NaOH back titration. Modified version for commercial laboratory use. Method AL0242.

[5] ACZ Laboratories, Inc., 2773 Downhill Dr., Steamboat Springs, CO 80487

[6] Meteoric Water Mobility Procedure, Bureau of Mining Regulation and Reclamation, Nevada Division of Environmental Protection, 9/19/9

[7] The "standard" sampling locations will change as the pit benches step inward. An expanded discussion of sampling locations is included in the Sampling Plan.

2005 Waste Rock Sampling Results

The 2005 ABA results indicated a net acid neutralization potential in all samples, ranging from 3.4 tons $CaCO_3$/1000 tons waste (tons $CaCO_3$) to 97.5 tons $CaCO_3$. These results compare favorably with previous studies, which indicate that the bulk of waste rock produced by the LVMC will be strongly acid neutralizing.[8]

The 2005 MWMP results identified the dissolution of copper, uranium, zinc, cadmium, and selenium. With the exception of copper, the 2005 results are at, or below average concentrations measured from the same rock types in previous studies.[9]

The 2005 waste rock sampling results are tabulated in Table 3. Laboratory reports are attached as Appendix A.

2005 Waste Rock Placement and Encapsulation

Approximately 3520 kt of waste rock was mined in 2005. Of this total, approximately 2166 kt were placed in Waste Dump C, 375 kt were utilized for leach pad construction, 617 kt were utilized for haul roads construction, and 362 kt were stockpiled as topsoil. The tonnage and placement of waste rock from each pit is detailed in Table 4.

Waste Dump As-Built Mapping

The LVMC maps its waste dumps in spatial coordinates using a Geographic Information System (GIS). The same process documents the placement of rock types 4 and 5, which are visibly discernable in the dumps.

Figure 4 shows the perimeter of Waste Dump C at the end of 2005. The location of rock types 4 and 5 is included.

Pit Bench As-Built Mapping

The LVMC documents the location, thickness, and elevation of each bed in each pit as part of the Mine plan. For the 2005 Report, bed numbers were converted to rock types. An as-built map of each pit, showing the occurrence and elevation of each rock type in each pit through the end of 2005 is included in Appendix B.

---

[8] BLM 1997. Final Environmental Impact Statement Lisbon Valley Copper Project, February, 1997.
[9] Adrian Brown 1997. Post-Mining Water Balance and Geochemical Model Report 1424A.970119. 19 January 1997.

Summary and Conclusions

The LVMC handled approximately 3,520 kt of waste rock in 2005. Approximately 62% was placed in Waste Dump C, 10% was stockpiled for topsoil, 10% was used for leach pad construction, and 18% was used for haul roads construction. Waste from rock types 4 and 5 were placed near the center of Waste Dump C.

The ABA results demonstrate that the waste rock mined in 2005 is overall acid neutralizing. These results correlate favorably with baseline ABA testing (BLM 1997).

The MWMP results identified the dissolution of metals, including antimony, uranium, cadmium, copper, selenium, and zinc in the sample extract. The MWMP results compare favorably with baseline MWMP testing of the same rock types (Adrian Brown 1997).

Additional sampling of all rock types will be conducted in 2006 in accordance with the Sampling Plan. The results will be compiled in a database for continued correlation with baseline testing.

The LVMC will continue to treat rock types 4 and 5 as acid-generating, and encapsulate this waste in acid-neutralizing waste near the center of dumps.

Please call Lantz Indergard at (435) 686 9950 #226 if you have any questions regarding this report.

Sincerely,

Lantz Indergard PG
Environmental Manager

cc. Paul Baker (UDOGM) Keith Eagan (UDEQ) Pat Gochnour

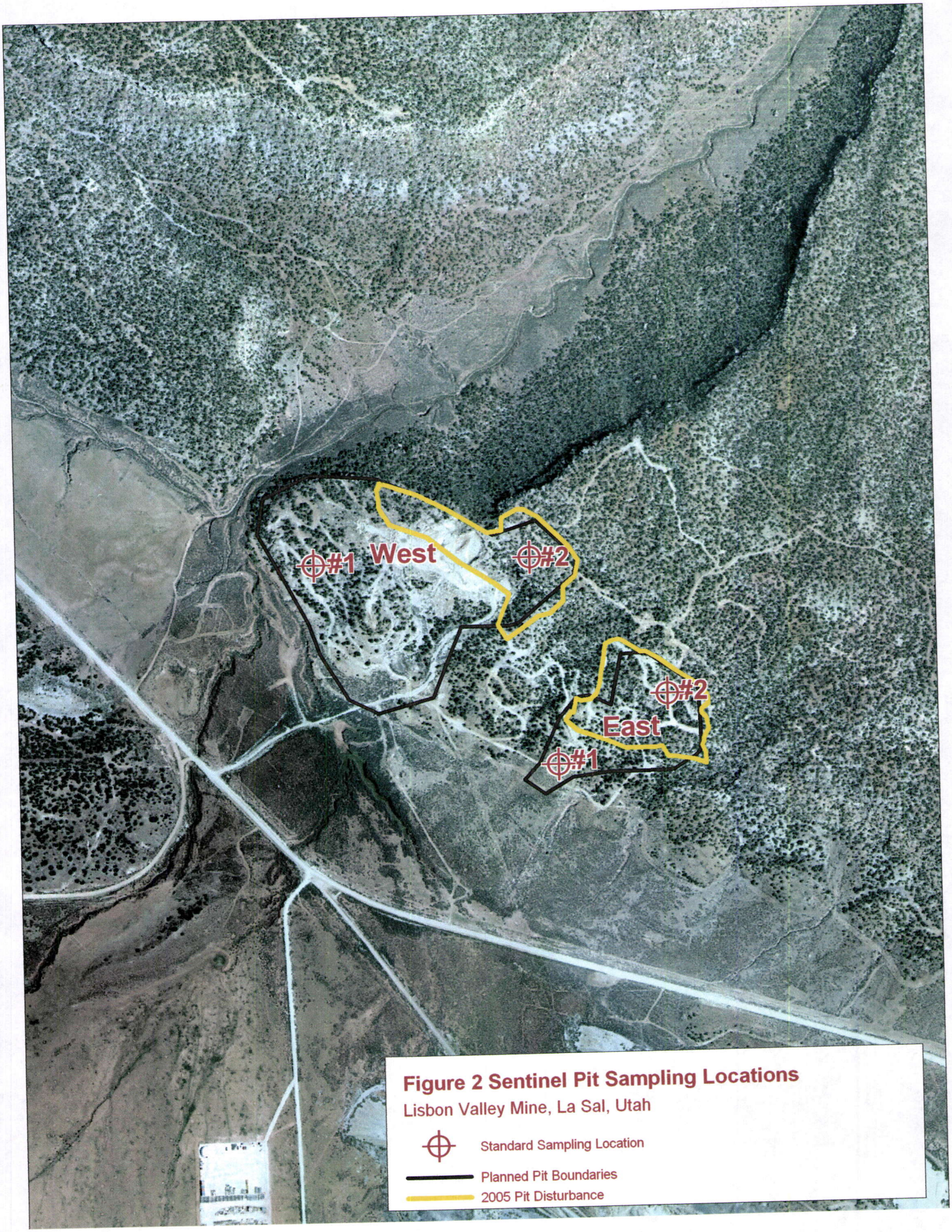

#1
West
#2
#2
East
#1
Figure 2 Sentinel Pit Sampling Locations
Lisbon Valley Mine, La Sal, Utah
Standard Sampling Location
Planned Pit Boundaries
2005 Pit Disturbance

Figure 3 Centennial Pit Sampling Locations

Lisbon Valley Mine, La Sal, Utah

Standard Sampling Location

Planned Pit Boundaries

2005 Pit Disturbance


Figure 4 Waste Dump C
Lisbon Valley Mine, La Sal, Utah
Planned Dump Boundaries
2005 Dump Boundaries
Rock Types 4-5

LISBON VALLEY MINING CO

Table 2
LVMC Standard Sampling Locations
Lisbon Valley Mine
La Sal, Utah

Pit	Sampling Location Designation	Northing (Latitude/Mine Grid)	Easting (Longitude/Mine Grid)
Sentinel West	#1	38.1452 44,570	-109.1415 38,870
	#2	38.1452 44,540	-109.1369 40,200
Sentinel East	#1	38.1508 43,320	-109.1368 40,260
	#2	38.1518 43,680	-109.1345 40,910
Centennial	#1	38.1452 40,640	-109.1333 40,360
	#2	38.1433 41,280	-109.1362 41,210
	#3	38.143 39,690	-109.1277 42,180
	#4	38.1408 40,470	-109.1301 42,870
	#5	38.1378 39,010	-109.1232 43,430

LISBON VALLEY MINING CO

Table 3
2005 Waste Rock Monitoring Results
Lisbon Valley Mine
La Sal, Utah

Pit	Sampling Location	Rock Type	Sample Type	Sample ID	Date	Results	
						Titration (tons $CaCO_3$/1000 tons waste)	MWMP Detection (mg/L metals)
Sentinel West	2	7	Bulk Composite	Sent.West	12/16/2005		Copper-0.05, Uranium-0.0003, Zinc-0.01
Sentinel West	2	7	Drill Pulp	6540 10 75	10/1/2005	14.4	
Sentinel West	2	7	Drill Pulp	6520 10 70	10/20/2005	20.7	
Sentinel East	2	7	Bulk Composite	Sent. East	12/16/2005		Copper-0.02, Uranium-0.0021, Zinc-0.01
Sentinel East	2	7	Drill Pulp	6540 20 56	10/13/2005	38	
Sentinel East	2	7	Drill Pulp	6560 20 95	9/24/2005	97.5	
Centennial	1	4	Bulk Composite	Cent. 6-8	12/16/2005		high Cadmium-0.011, Copper-0.20, Uranium 0.0021, Zinc-0.46
Centennial	1	5	Bulk Composite	Cent. 6-10	12/16/2005		Selenium 0.04, Uranium-0.0008, Zinc-0.04,
Centennial	1	6	Bulk Composite	Cent. 11-13	12/16/2005		Uranium - 0.0004
Centennial	1	7	Bulk Composite	Cent. 14	12/16/2005		Uranium - 0.0022
Centennial	1	5	Drill Pulp	6440 87 300	7/28/2005	3.4	
Centennial	1	4	Drill Pulp	6420 30 1882	11/30/2005	2.6	

LISBON VALLEY MINING CO

Table 4
2005 Waste Rock Monitoring Results
Lisbon Valley Mine
La Sal, Utah

Pit	Sampling Location	Rock Type	Sample Type	Sample ID	Date	Results	
						Titration (tons $CaCO_3$/1000 tons waste)	MWMP Detection (mg/L metals)
Sentinel West	2	7	Bulk Composite	Sent.West	12/16/2005		Copper-0.05, Uranium-0.0003, Zinc-0.01
Sentinel West	2	7	Drill Pulp	6540 10 75	10/1/2005	14.4	
Sentinel West	2	7	Drill Pulp	6520 10 70	10/20/2005	20.7	
Sentinel East	2	7	Bulk Composite	Sent. East	12/16/2005		Copper-0.02, Uranium-0.0021, Zinc-0.01
Sentinel East	2	7	Drill Pulp	6540 20 56	10/13/2005	38	
Sentinel East	2	7	Drill Pulp	6560 20 95	9/24/2005	97.5	
Centennial	1	4	Bulk Composite	Cent. 6-8	12/16/2005		Cadmium-0.011, Copper-0.20, Uranium 0.0021, Zinc-0.46
Centennial	1	5	Bulk Composite	Cent. 6-10	12/16/2005		Selenium 0.04, Uranium-0.0008, Zinc-0.04,
Centennial	1	6	Bulk Composite	Cent. 11-13	12/16/2005		Uranium - 0.0004
Centennial	1	7	Bulk Composite	Cent. 14	12/16/2005		Uranium - 0.0022
Centennial	1	5	Drill Pulp	6440 87 300	7/28/2005	3.4	
Centennial	1	4	Drill Pulp	6420 30 1882	11/30/2005	2.6	

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Analytical Report

January 13, 2006

Report to:
Lantz Indergard
Lisbon Valley Mining Company, LLC
P.O. Box 248
La Sal, UT 84530

Bill to:
Lantz Indergard
Lisbon Valley Mining Company, LLC
P.O. Box 248
La Sal, UT 84530

Project ID:
ACZ Project ID: L54653

Lantz Indergard:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on December 20, 2005. This project has been assigned to ACZ's project number, L54653. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan, version 11.0. The enclosed results relate only to the samples received under L54653. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

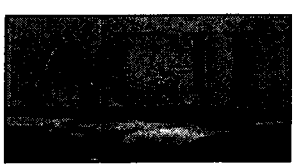
All samples and sub-samples associated with this project will be disposed of after February 13, 2006. If the samples are determined to be hazardous, additional charges apply for disposal (typically less than $10/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical reports for five years.

If you have any questions or other needs, please contact your Project Manager.

13/Jan/06

Sue Webber, Project Manager, has reviewed and approved this report in its entirety.

ACCREDITED IN ACCORDANCE WITH



ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Lisbon Valley Mining Company, LLC
Project ID:
Sample ID: CENT. 6-8

ACZ Sample ID: ***L54653-01***
Date Sampled: *12/16/05 00:00*
Date Received: *12/20/05*
Sample Matrix: *Soil*

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Antimony (MWMT)	M6020 ICP-MS		U		mg/L	0.0004	0.002	01/12/06 7:09	jag
Arsenic (MWMT)	M6010B ICP		U		mg/L	0.04	0.2	01/12/06 10:56	jjc
Cadmium (MWMT)	M6010B ICP	0.011	B		mg/L	0.005	0.02	01/12/06 10:56	jjc
Copper (MWMT)	M6010B ICP	0.20			mg/L	0.01	0.05	01/12/06 10:56	jjc
Molybdenum (MWMT)	M6010B ICP		U		mg/L	0.01	0.05	01/12/06 10:56	jjc
Selenium (MWMT)	M6010B ICP		U		mg/L	0.04	0.2	01/12/06 10:56	jjc
Uranium (MWMT)	M6020 ICP-MS	0.0021			mg/L	0.0001	0.0005	01/12/06 7:09	jag
Zinc (MWMT)	M6010B ICP	0.46			mg/L	0.01	0.05	01/12/06 10:56	jjc

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Meteoric Water Mobility Extraction	NDEP - MWMT, Sept. 19, 1990								
Dry Weight		4520		*	g			01/03/06 0:00	gme
Extraction pH		6.7		*	units			01/03/06 0:00	gme
Extraction Time		31		*	hrs			01/03/06 0:00	gme
Leachate pH		3.54		*	units			01/03/06 0:00	gme
Leachate Volume		5980		*	mL			01/03/06 0:00	gme
Particle Size over 5 cm		19		*	%			01/03/06 0:00	gme
Retained Moisture		16		*	%			01/03/06 0:00	gme

** Please refer to Extended Qualifier Report for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Lisbon Valley Mining Company, LLC
Project ID:
Sample ID: CENT. 6-10

ACZ Sample ID: ***L54653-02***
Date Sampled: *12/16/05 00:00*
Date Received: *12/20/05*
Sample Matrix: *Soil*

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Antimony (MWMT)	M6020 ICP-MS	0.0006	B		mg/L	0.0004	0.002	01/12/06 7:16	jag
Arsenic (MWMT)	M6010B ICP		U		mg/L	0.04	0.2	01/12/06 11:03	jjc
Cadmium (MWMT)	M6010B ICP		U		mg/L	0.005	0.02	01/12/06 11:03	jjc
Copper (MWMT)	M6010B ICP		U		mg/L	0.01	0.05	01/12/06 11:03	jjc
Molybdenum (MWMT)	M6010B ICP		U		mg/L	0.01	0.05	01/12/06 11:03	jjc
Selenium (MWMT)	M6010B ICP	0.04	B		mg/L	0.04	0.2	01/12/06 11:03	jjc
Uranium (MWMT)	M6020 ICP-MS	0.0008			mg/L	0.0001	0.0005	01/12/06 7:16	jag
Zinc (MWMT)	M6010B ICP	0.04	B		mg/L	0.01	0.05	01/12/06 11:03	jjc

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Meteoric Water Mobility Extraction	NDEP - MWMT, Sept. 19, 1990								
Dry Weight		5220		*	g			01/03/06 0:00	gme
Extraction pH		6.7		*	units			01/03/06 0:00	gme
Extraction Time		31		*	hrs			01/03/06 0:00	gme
Leachate pH		6.59		*	units			01/03/06 0:00	gme
Leachate Volume		4230		*	mL			01/03/06 0:00	gme
Particle Size over 5 cm		30		*	%			01/03/06 0:00	gme
Retained Moisture		20.8		*	%			01/03/06 0:00	gme

** Please refer to Extended Qualifier Report for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487(800) 334-5493

Inorganic Analytical Results

Lisbon Valley Mining Company, LLC
Project ID:
Sample ID: SENT. WEST

ACZ Sample ID: ***L54653-03***
Date Sampled: *12/16/05 00:00*
Date Received: *12/20/05*
Sample Matrix: *Soil*

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Antimony (MWMT)	M6020 ICP-MS		U		mg/L	0.0004	0.002	01/12/06 7:35	jag
Arsenic (MWMT)	M6010B ICP		U		mg/L	0.04	0.2	01/12/06 11:23	jjc
Cadmium (MWMT)	M6010B ICP		U		mg/L	0.005	0.02	01/12/06 11:23	jjc
Copper (MWMT)	M6010B ICP	0.05	B		mg/L	0.01	0.05	01/12/06 11:23	jjc
Molybdenum (MWMT)	M6010B ICP		U		mg/L	0.01	0.05	01/12/06 11:23	jjc
Selenium (MWMT)	M6010B ICP		U		mg/L	0.04	0.2	01/12/06 11:23	jjc
Uranium (MWMT)	M6020 ICP-MS	0.0003	B		mg/L	0.0001	0.0005	01/12/06 7:35	jag
Zinc (MWMT)	M6010B ICP	0.01	B		mg/L	0.01	0.05	01/12/06 11:23	jjc

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Meteoric Water Mobility Extraction	NDEP - MWMT, Sept. 19, 1990								
Dry Weight		3800		*	g			01/03/06 0:00	gme
Extraction pH		6.7		*	units			01/03/06 0:00	gme
Extraction Time		27		*	hrs			01/03/06 0:00	gme
Leachate pH		6.71		*	units			01/03/06 0:00	gme
Leachate Volume		3500		*	mL			01/03/06 0:00	gme
Particle Size over 5 cm		97		*	%			01/03/06 0:00	gme
Retained Moisture		12		*	%			01/03/06 0:00	gme

** Please refer to Extended Qualifier Report for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487(800) 334-5493

Inorganic Analytical Results

Lisbon Valley Mining Company, LLC
Project ID:
Sample ID: SENT. EAST

ACZ Sample ID: ***L54653-04***
Date Sampled: *12/16/05 00:00*
Date Received: *12/20/05*
Sample Matrix: *Soil*

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Antimony (MWMT)	M6020 ICP-MS		U		mg/L	0.0004	0.002	01/12/06 7:48	jag
Arsenic (MWMT)	M6010B ICP		U		mg/L	0.04	0.2	01/12/06 11:26	jjc
Cadmium (MWMT)	M6010B ICP		U		mg/L	0.005	0.02	01/12/06 11:26	jjc
Copper (MWMT)	M6010B ICP	0.02	B		mg/L	0.01	0.05	01/12/06 11:26	jjc
Molybdenum (MWMT)	M6010B ICP		U		mg/L	0.01	0.05	01/12/06 11:26	jjc
Selenium (MWMT)	M6010B ICP		U		mg/L	0.04	0.2	01/12/06 11:26	jjc
Uranium (MWMT)	M6020 ICP-MS	0.0021			mg/L	0.0001	0.0005	01/12/06 7:48	jag
Zinc (MWMT)	M6010B ICP		U		mg/L	0.01	0.05	01/12/06 11:26	jjc

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Meteoric Water Mobility Extraction	NDEP - MWMT, Sept. 19, 1990								
Dry Weight		2890		*	g			01/03/06 0:00	gme
Extraction pH		6.7		*	units			01/03/06 0:00	gme
Extraction Time		24		*	hrs			01/03/06 0:00	gme
Leachate pH		6.71		*	units			01/03/06 0:00	gme
Leachate Volume		2750		*	mL			01/03/06 0:00	gme
Particle Size over 5 cm		89		*	%			01/03/06 0:00	gme
Retained Moisture		14.9		*	%			01/03/06 0:00	gme

** Please refer to Extended Qualifier Report for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Reference

Report Header Explanations

Batch	A distinct set of samples analyzed at a specific time
Found	Value of the QC Type of interest
Limit	Upper limit for RPD, in %.
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
MDL	Method Detection Limit. Same as Minimum Reporting Limit. Allows for instrument and annual fluctuations.
PCN/SCN	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
PQL	Practical Quantitation Limit, typically 5 times the MDL.
QC	True Value of the Control Sample or the amount added to the Spike
Rec	Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC Types
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
Sample	Value of the Sample of interest

QC Sample Types

AS	Analytical Spike (Post Digestion)	*LCSWD*	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	*LFB*	Laboratory Fortified Blank
CCB	Continuing Calibration Blank	*LFM*	Laboratory Fortified Matrix
CCV	Continuing Calivation Verification standard	*LFMD*	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	*LRB*	Laboratory Reagent Blank
ICB	Initial Calibration Blank	*MS*	Matrix Spike
ICV	Initial Calibration Verification standard	*MSD*	Matrix Spike Duplicate
ICSAB	Inter-element Correction Standard - A plus B solutions	*PBS*	Prep Blank - Soil
LCSS	Laboratory Control Sample - Soil	*PBW*	Prep Blank - Water
LCSSD	Laboratory Control Sample - Soil Duplicate	*PQV*	Practical Quantitation Verification standard
LCSW	Laboratory Control Sample - Water	*SDL*	Serial Dilution

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
R	Poor spike recovery accepted because the other spike in the set fell within the given limits.
T	High Relative Percent Difference (RPD) accepted because sample concentrations are less than 10x the MDL.
U	Analyte was analyzed for but not detected at the indicated MDL
V	High blank data accepted because sample concentration is 10 times higher than blank concentration
W	Poor recovery for Silver quality control is accepted because Silver often precipitates with Chloride.
X	Quality control sample is out of control.
Z	Poor spike recovery is accepted because sample concentration is four times greater than spike concentration.

Method References

(1)	EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2)	EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
(3)	EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
(5)	EPA SW-846. Test Methods for Evaluating Solid Waste, Third Edition with Update III, December 1996.
(6)	Standard Methods for the Examination of Water and Wastewater, 19th edition, 1995.

Comments

(1)	QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
(2)	Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
(3)	Animal matrices for Inorganic analyses are reported on an "as received" basis.

Lisbon Valley Mining Company, LLC ACZ Project ID: ***L54653***

Project ID:

Antimony (MWMT) M6020 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG201389													
WG201389ICV	ICV	01/12/06 6:29	MS051114-2	.02004		.0198	mg/L	98.8	90	110			
WG201389ICB	ICB	01/12/06 6:36				U	mg/L		-0.0012	0.0012			
WG201123PBS	PBS	01/12/06 7:02				U	mg/L		-0.0012	0.0012			
L54653-02AS	AS	01/12/06 7:22	MS051031-6	.00625	.0006	.007	mg/L	102.4	75	125			
L54653-02ASD	ASD	01/12/06 7:29	MS051031-6	.00625	.0006	.00702	mg/L	102.7	75	125	0.29	20	

Arsenic (MWMT) M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG201384													
WG201384ICV	ICV	01/12/06 10:36	II060104-7	4		3.969	mg/L	99.2	90	110			
WG201384ICB	ICB	01/12/06 10:39				U	mg/L		-0.12	0.12			
WG201123PBS	PBS	01/12/06 10:53				U	mg/L		-0.12	0.12			
L54653-02AS	AS	01/12/06 11:09	II060109-4	1	U	1.048	mg/L	104.8	75	125			
L54653-02ASD	ASD	01/12/06 11:13	II060109-4	1	U	1.054	mg/L	105.4	75	125	0.57	20	

Cadmium (MWMT) M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG201384													
WG201384ICV	ICV	01/12/06 10:36	II060104-7	2		1.8909	mg/L	94.5	90	110			
WG201384ICB	ICB	01/12/06 10:39				U	mg/L		-0.015	0.015			
WG201123PBS	PBS	01/12/06 10:53				U	mg/L		-0.015	0.015			
L54653-02AS	AS	01/12/06 11:09	II060109-4	.5	U	.5022	mg/L	100.4	75	125			
L54653-02ASD	ASD	01/12/06 11:13	II060109-4	.5	U	.4982	mg/L	99.6	75	125	0.8	20	

Copper (MWMT) M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG201384													
WG201384ICV	ICV	01/12/06 10:36	II060104-7	2		1.906	mg/L	95.3	90	110			
WG201384ICB	ICB	01/12/06 10:39				U	mg/L		-0.03	0.03			
WG201123PBS	PBS	01/12/06 10:53				U	mg/L		-0.03	0.03			
L54653-02AS	AS	01/12/06 11:09	II060109-4	.5	U	.518	mg/L	103.6	75	125			
L54653-02ASD	ASD	01/12/06 11:13	II060109-4	.5	U	.519	mg/L	103.8	75	125	0.19	20	

Molybdenum (MWMT) M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG201384													
WG201384ICV	ICV	01/12/06 10:36	II060104-7	2		1.983	mg/L	99.2	90	110			
WG201384ICB	ICB	01/12/06 10:39				U	mg/L		-0.03	0.03			
WG201123PBS	PBS	01/12/06 10:53				U	mg/L		-0.03	0.03			
L54653-02AS	AS	01/12/06 11:09	II060109-4	.5	U	.533	mg/L	106.6	75	125			
L54653-02ASD	ASD	01/12/06 11:13	II060109-4	.5	U	.521	mg/L	104.2	75	125	2.28	20	

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic QC Summary

Lisbon Valley Mining Company, LLC ACZ Project ID: ***L54653***

Project ID:

Selenium (MWMT) M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG201384													
WG201384ICV	ICV	01/12/06 10:36	II060104-7	4		3.911	mg/L	97.8	90	110			
WG201384ICB	ICB	01/12/06 10:39				U	mg/L		-0.12	0.12			
WG201123PBS	PBS	01/12/06 10:53				U	mg/L		-0.12	0.12			
L54653-02AS	AS	01/12/06 11:09	II060109-4	1	.04	1.129	mg/L	108.9	75	125			
L54653-02ASD	ASD	01/12/06 11:13	II060109-4	1	.04	1.106	mg/L	106.6	75	125	2.06	20	

Uranium (MWMT) M6020 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG201389													
WG201389ICV	ICV	01/12/06 6:29	MS051114-2	.05		.05284	mg/L	105.7	90	110			
WG201389ICB	ICB	01/12/06 6:36				U	mg/L		-0.0003	0.0003			
WG201123PBS	PBS	01/12/06 7:02				U	mg/L		-0.0003	0.0003			
L54653-02AS	AS	01/12/06 7:22	MS051031-6	.025	.0008	.02481	mg/L	96	75	125			
L54653-02ASD	ASD	01/12/06 7:29	MS051031-6	.025	.0008	.02487	mg/L	96.3	75	125	0.24	20	

Zinc (MWMT) M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG201384													
WG201384ICV	ICV	01/12/06 10:36	II060104-7	2		1.906	mg/L	95.3	90	110			
WG201384ICB	ICB	01/12/06 10:39				U	mg/L		-0.03	0.03			
WG201123PBS	PBS	01/12/06 10:53				U	mg/L		-0.03	0.03			
L54653-02AS	AS	01/12/06 11:09	II060109-4	.5	.04	.561	mg/L	104.2	75	125			
L54653-02ASD	ASD	01/12/06 11:13	II060109-4	.5	.04	.543	mg/L	100.6	75	125	3.26	20	

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Extended Qualifier Report

Lisbon Valley Mining Company, LLC ACZ Project ID: ***L54653***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L54653-01	WG201123	Dry Weight	NDEP - MWMT, Sept. 19, 1990	Q9	Insufficient sample received to meet method QC requirements.
		Extraction pH	NDEP - MWMT, Sept. 19, 1990	Q9	Insufficient sample received to meet method QC requirements.
		Extraction Time	NDEP - MWMT, Sept. 19, 1990	Q9	Insufficient sample received to meet method QC requirements.
		Leachate pH	NDEP - MWMT, Sept. 19, 1990	Q9	Insufficient sample received to meet method QC requirements.
		Leachate Volume	NDEP - MWMT, Sept. 19, 1990	Q9	Insufficient sample received to meet method QC requirements.
		Particle Size over 5 cm	NDEP - MWMT, Sept. 19, 1990	Q9	Insufficient sample received to meet method QC requirements.
		Retained Moisture	NDEP - MWMT, Sept. 19, 1990	Q9	Insufficient sample received to meet method QC requirements.
L54653-02	WG201123	Dry Weight	NDEP - MWMT, Sept. 19, 1990	Q9	Insufficient sample received to meet method QC requirements.
		Extraction pH	NDEP - MWMT, Sept. 19, 1990	Q9	Insufficient sample received to meet method QC requirements.
		Extraction Time	NDEP - MWMT, Sept. 19, 1990	Q9	Insufficient sample received to meet method QC requirements.
		Leachate pH	NDEP - MWMT, Sept. 19, 1990	Q9	Insufficient sample received to meet method QC requirements.
		Leachate Volume	NDEP - MWMT, Sept. 19, 1990	Q9	Insufficient sample received to meet method QC requirements.
		Particle Size over 5 cm	NDEP - MWMT, Sept. 19, 1990	Q9	Insufficient sample received to meet method QC requirements.
		Retained Moisture	NDEP - MWMT, Sept. 19, 1990	Q9	Insufficient sample received to meet method QC requirements.
L54653-03	WG201123	Dry Weight	NDEP - MWMT, Sept. 19, 1990	Q9	Insufficient sample received to meet method QC requirements.
		Extraction pH	NDEP - MWMT, Sept. 19, 1990	Q9	Insufficient sample received to meet method QC requirements.
		Extraction Time	NDEP - MWMT, Sept. 19, 1990	Q9	Insufficient sample received to meet method QC requirements.
		Leachate pH	NDEP - MWMT, Sept. 19, 1990	Q9	Insufficient sample received to meet method QC requirements.
		Leachate Volume	NDEP - MWMT, Sept. 19, 1990	Q9	Insufficient sample received to meet method QC requirements.
		Particle Size over 5 cm	NDEP - MWMT, Sept. 19, 1990	Q9	Insufficient sample received to meet method QC requirements.
		Retained Moisture	NDEP - MWMT, Sept. 19, 1990	Q9	Insufficient sample received to meet method QC requirements.
L54653-04	WG201123	Dry Weight	NDEP - MWMT, Sept. 19, 1990	Q9	Insufficient sample received to meet method QC requirements.
		Extraction pH	NDEP - MWMT, Sept. 19, 1990	Q9	Insufficient sample received to meet method QC requirements.
		Extraction Time	NDEP - MWMT, Sept. 19, 1990	Q9	Insufficient sample received to meet method QC requirements.
		Leachate pH	NDEP - MWMT, Sept. 19, 1990	Q9	Insufficient sample received to meet method QC requirements.
		Leachate Volume	NDEP - MWMT, Sept. 19, 1990	Q9	Insufficient sample received to meet method QC requirements.
		Particle Size over 5 cm	NDEP - MWMT, Sept. 19, 1990	Q9	Insufficient sample received to meet method QC requirements.
		Retained Moisture	NDEP - MWMT, Sept. 19, 1990	Q9	Insufficient sample received to meet method QC requirements.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Certification Qualifiers

Lisbon Valley Mining Company, LLC ACZ Project ID: ***L54653***

No certification qualifiers associated with this analysis

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

Lisbon Valley Mining Company, LLC

ACZ Project ID: L54653
Date Received: 12/20/2005
Received By:
Date Printed: 12/20/2005

Receipt Verification

	YES	NO	NA
1) Does this project require special handling procedures such as CLP protocol?			X
2) Are the custody seals on the cooler intact?			X
3) Are the custody seals on the sample containers intact?			X
4) Is there a Chain of Custody or other directive shipping papers present?	X		
5) Is the Chain of Custody complete?	X		
6) Is the Chain of Custody in agreement with the samples received?	X		
7) Is there enough sample for all requested analyses?	X		
8) Are all samples within holding times for requested analyses?	X		
9) Were all sample containers received intact?	X		
10) Are the temperature blanks present?			X
11) Are the trip blanks (VOA and/or Cyanide) present?			X
12) Are samples requiring no headspace, headspace free?			X
13) Do the samples that require a Foreign Soils Permit have one?			X

Exceptions: If you answered no to any of the above questions, please describe

N/A

Contact (For any discrepancies, the client must be contacted)

N/A

Shipping Containers

Cooler Id		Temp (°C)	Rad (µR/hr)
BOX		11.9	14

Client must contact ACZ Project Manager if analysis should not proceed for samples received outside of thermal preservation acceptance criteria.

Notes

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

Lisbon Valley Mining Company, LLC

ACZ Project ID: L54653
Date Received: 12/20/2005
Received By:

Sample Container Preservation

SAMPLE	CLIENT ID	R < 2	G < 2	Y < 2	YG< 2	B < 2	BL< 2	O < 2	T >12	P >12	N/A	RAD	ID
L54653-01	CENT. 6-8										X		
L54653-02	CENT. 6-10										X		
L54653-03	SENT. WEST										X		
L54653-04	SENT. EAST										X		

Sample Container Preservation Legend

Abbreviation	Description	Container Type	Preservative/Limits
R	Raw/Nitric	RED	pH must be < 2
B	Filtered/Sulfuric	BLUE	pH must be < 2
BL	Filtered/Nitric	BLACK	pH must be < 2
G	Filtered/Nitric	GREEN	pH must be < 2
O	Raw/Sulfuric	ORANGE	pH must be < 2
P	Raw/NaOH	PURPLE	pH must be > 12
T	Raw/NaOH Zinc Acetate	TAN	pH must be > 12
Y	Raw/Sulfuric	YELLOW	pH must be < 2
YG	Raw/Sulfuric	YELLOW GLASS	pH must be < 2
N/A	No preservative needed	Not applicable	
RAD	Gamma/Beta dose rate	Not applicable	must be < 250 µR/hr

Sample IDs Reviewed By: _____

L54653

Lisbon Valley Mining Co.

P.O. Box 248
920 S. County Rd. 313
La Sal, Utah 84530
Phone: (435) 686-9950

Chain of Custody Record

Send report with laboratory QA to:

P.O. Box 248
La Sal, Utah 84530

Lisbon Valley Copper Project

ACZ Laboratories, Inc.
2773 Downhill Drive
Steamboat Springs, CO
(970) 879-6590

SAMPLE NUMBER	DATE	TIME	MWMP	Dissolved metals	Ammonia as N	Total uranium	Total alkalinity & TSS	Radiochemistry [2]	pH & conductivity [3]	Number of Containers
Cent.6-8	12/16/2005	AM	x							
Cent.6-10	12/16/2005	AM	x							
Sent. West	12/16/2005	AM	x							
Sent.East	12/16/2005	AM	x							

-see attached quote SW 12/20/05

Remarks / Comments

SW 12-20-05

Matrix: Water

Samples Stored on Ice

1) Dissolved alkalinity, chloride, hardness, sulfate, nitrate, nitrite, nitrate/nitrite, TDS, fluoride
2) Gross alpha, gross beta, radium $^{226/228}$, thorium $^{230/232}$
3) Centrifuge tube for pH & conductivity

Note:

- Follow standard analytical suite for project and required detection limits

Sampled By: Lantx M Indergard

Total Number of Containers: 1

Sampler's Signature: [signature]

Contact Person: Lantz M Indergard
Phone: (435) 686-9950 ext. 226 Fax: (435) 686-2223

Relinquished By: [signature] Date / Time: 12-16-05/11:25

Received By: PJE Date / Time: 12/20/05 12:00

Method of Shipment: Federal Express

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Analytical Quote

Lantz Indergard
Lisbon Valley Mining Company, LLC
P.O. Box 248
La Sal, UT 84530

12/16/2005

Quote Number: MWMP

Matrix: Soil — Analysis of Waste Rock for MWMP Metals

Parameter	Method	Detection Limit	Cost/Sample
Metals Analysis			
Antimony (MWMT)	M6020 ICP-MS	0.0004 mg/L	$16.20
Arsenic (MWMT)	M6010B ICP	0.04 mg/L	$8.10
Cadmium (MWMT)	M6010B ICP	0.005 mg/L	$8.10
Copper (MWMT)	M6010B ICP	0.01 mg/L	$8.10
Molybdenum (MWMT)	M6010B ICP	0.01 mg/L	$8.10
Selenium (MWMT)	M6010B ICP	0.04 mg/L	$8.10
Uranium (MWMT)	M6020 ICP-MS	0.0001 mg/L	$16.20
Zinc (MWMT)	M6010B ICP	0.01 mg/L	$8.10
Misc.			
Quality Control Summary			$0.00
Setup Charge for ICPMS			$16.20
Sample Preparation			
Meteoric Water Mobility Extraction	NDEP - MWMT, Sept. 19, 1990		$139.50
		Cost/Sample:	**$236.70**

Prices are based on a standard turnaround time of 3 weeks or 15 working days.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Analytical Report

January 13, 2006

Report to:
Lantz Indergard
Lisbon Valley Mining Company, LLC
P.O. Box 248
La Sal, UT 84530

Bill to:
Lantz Indergard
Lisbon Valley Mining Company, LLC
P.O. Box 248
La Sal, UT 84530

Project ID:
ACZ Project ID: L54689

Lantz Indergard:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on December 22, 2005. This project has been assigned to ACZ's project number, L54689. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan, version 11.0. The enclosed results relate only to the samples received under L54689. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after February 13, 2006. If the samples are determined to be hazardous, additional charges apply for disposal (typically less than $10/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical reports for five years.

If you have any questions or other needs, please contact your Project Manager.

13/Jan/06

Sue Webber, Project Manager, has reviewed and approved this report in its entirety.

ACCREDITED IN ACCORDANCE WITH nelac

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Lisbon Valley Mining Company, LLC
Project ID:
Sample ID: CENT. 11-13

ACZ Sample ID: ***L54689-01***
Date Sampled: *12/16/05 00:00*
Date Received: *12/22/05*
Sample Matrix: *Soil*

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Antimony (MWMT)	M6020 ICP-MS		U		mg/L	0.0004	0.002	01/12/06 8:08	jag
Arsenic (MWMT)	M6010B ICP		U		mg/L	0.04	0.2	01/12/06 11:30	jjc
Cadmium (MWMT)	M6010B ICP		U		mg/L	0.005	0.02	01/12/06 11:30	jjc
Copper (MWMT)	M6010B ICP		U		mg/L	0.01	0.05	01/12/06 11:30	jjc
Molybdenum (MWMT)	M6010B ICP		U		mg/L	0.01	0.05	01/12/06 11:30	jjc
Selenium (MWMT)	M6010B ICP		U		mg/L	0.04	0.2	01/12/06 11:30	jjc
Uranium (MWMT)	M6020 ICP-MS	0.0004	B		mg/L	0.0001	0.0005	01/12/06 8:08	jag
Zinc (MWMT)	M6010B ICP		U		mg/L	0.01	0.05	01/12/06 11:30	jjc

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Meteoric Water Mobility Extraction	NDEP - MWMT, Sept. 19, 1990								
Dry Weight		4630		*	g			01/03/06 0:00	gme
Extraction pH		6.7		*	units			01/03/06 0:00	gme
Extraction Time		26		*	hrs			01/03/06 0:00	gme
Leachate pH		7.11		*	units			01/03/06 0:00	gme
Leachate Volume		4310		*	mL			01/03/06 0:00	gme
Particle Size over 5 cm		46		*	%			01/03/06 0:00	gme
Retained Moisture		17.5		*	%			01/03/06 0:00	gme

** Please refer to Extended Qualifier Report for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487(800) 334-5493

Inorganic Analytical Results

Lisbon Valley Mining Company, LLC
Project ID:
Sample ID: CENT. 14

ACZ Sample ID: ***L54689-02***
Date Sampled: *12/16/05 00:00*
Date Received: *12/22/05*
Sample Matrix: *Soil*

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Antimony (MWMT)	M6020 ICP-MS		U		mg/L	0.0004	0.002	01/12/06 8:15	jag
Arsenic (MWMT)	M6010B ICP		U		mg/L	0.04	0.2	01/12/06 11:33	jjc
Cadmium (MWMT)	M6010B ICP		U		mg/L	0.005	0.02	01/12/06 11:33	jjc
Copper (MWMT)	M6010B ICP		U		mg/L	0.01	0.05	01/12/06 11:33	jjc
Molybdenum (MWMT)	M6010B ICP		U		mg/L	0.01	0.05	01/12/06 11:33	jjc
Selenium (MWMT)	M6010B ICP		U		mg/L	0.04	0.2	01/12/06 11:33	jjc
Uranium (MWMT)	M6020 ICP-MS	0.0022			mg/L	0.0001	0.0005	01/12/06 8:15	jag
Zinc (MWMT)	M6010B ICP		U		mg/L	0.01	0.05	01/12/06 11:33	jjc

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Meteoric Water Mobility Extraction	NDEP - MWMT, Sept. 19, 1990								
Dry Weight		4650		*	g			01/03/06 0:00	gme
Extraction pH		6.7		*	units			01/03/06 0:00	gme
Extraction Time		26		*	hrs			01/03/06 0:00	gme
Leachate pH		7.62		*	units			01/03/06 0:00	gme
Leachate Volume		4380		*	mL			01/03/06 0:00	gme
Particle Size over 5 cm		55		*	%			01/03/06 0:00	gme
Retained Moisture		10.8		*	%			01/03/06 0:00	gme

** Please refer to Extended Qualifier Report for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Reference

Report Header Explanations

Batch	A distinct set of samples analyzed at a specific time
Found	Value of the QC Type of interest
Limit	Upper limit for RPD, in %.
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
MDL	Method Detection Limit. Same as Minimum Reporting Limit. Allows for instrument and annual fluctuations.
PCN/SCN	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
PQL	Practical Quantitation Limit, typically 5 times the MDL.
QC	True Value of the Control Sample or the amount added to the Spike
Rec	Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC Types
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
Sample	Value of the Sample of interest

QC Sample Types

AS	Analytical Spike (Post Digestion)	*LCSWD*	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	*LFB*	Laboratory Fortified Blank
CCB	Continuing Calibration Blank	*LFM*	Laboratory Fortified Matrix
CCV	Continuing Calivation Verification standard	*LFMD*	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	*LRB*	Laboratory Reagent Blank
ICB	Initial Calibration Blank	*MS*	Matrix Spike
ICV	Initial Calibration Verification standard	*MSD*	Matrix Spike Duplicate
ICSAB	Inter-element Correction Standard - A plus B solutions	*PBS*	Prep Blank - Soil
LCSS	Laboratory Control Sample - Soil	*PBW*	Prep Blank - Water
LCSSD	Laboratory Control Sample - Soil Duplicate	*PQV*	Practical Quantitation Verification standard
LCSW	Laboratory Control Sample - Water	*SDL*	Serial Dilution

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
R	Poor spike recovery accepted because the other spike in the set fell within the given limits.
T	High Relative Percent Difference (RPD) accepted because sample concentrations are less than 10x the MDL.
U	Analyte was analyzed for but not detected at the indicated MDL
V	High blank data accepted because sample concentration is 10 times higher than blank concentration
W	Poor recovery for Silver quality control is accepted because Silver often precipitates with Chloride.
X	Quality control sample is out of control.
Z	Poor spike recovery is accepted because sample concentration is four times greater than spike concentration.

Method References

(1)	EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2)	EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
(3)	EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
(5)	EPA SW-846. Test Methods for Evaluating Solid Waste, Third Edition with Update III, December 1996.
(6)	Standard Methods for the Examination of Water and Wastewater, 19th edition, 1995.

Comments

(1)	QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
(2)	Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
(3)	Animal matrices for Inorganic analyses are reported on an "as received" basis.

Lisbon Valley Mining Company, LLC ACZ Project ID: ***L54689***

Project ID:

Antimony (MWMT) M6020 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG201389													
WG201389ICV	ICV	01/12/06 6:29	MS051114-2	.02004		.0198	mg/L	98.8	90	110			
WG201389ICB	ICB	01/12/06 6:36				U	mg/L		-0.0012	0.0012			
WG201123PBS	PBS	01/12/06 7:02				U	mg/L		-0.0012	0.0012			
L54653-02AS	AS	01/12/06 7:22	MS051031-6	.00625	.0006	.007	mg/L	102.4	75	125			
L54653-02ASD	ASD	01/12/06 7:29	MS051031-6	.00625	.0006	.00702	mg/L	102.7	75	125	0.29	20	

Arsenic (MWMT) M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG201384													
WG201384ICV	ICV	01/12/06 10:36	II060104-7	4		3.969	mg/L	99.2	90	110			
WG201384ICB	ICB	01/12/06 10:39				U	mg/L		-0.12	0.12			
WG201123PBS	PBS	01/12/06 10:53				U	mg/L		-0.12	0.12			
L54653-02AS	AS	01/12/06 11:09	II060109-4	1	U	1.048	mg/L	104.8	75	125			
L54653-02ASD	ASD	01/12/06 11:13	II060109-4	1	U	1.054	mg/L	105.4	75	125	0.57	20	

Cadmium (MWMT) M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG201384													
WG201384ICV	ICV	01/12/06 10:36	II060104-7	2		1.8909	mg/L	94.5	90	110			
WG201384ICB	ICB	01/12/06 10:39				U	mg/L		-0.015	0.015			
WG201123PBS	PBS	01/12/06 10:53				U	mg/L		-0.015	0.015			
L54653-02AS	AS	01/12/06 11:09	II060109-4	.5	U	.5022	mg/L	100.4	75	125			
L54653-02ASD	ASD	01/12/06 11:13	II060109-4	.5	U	.4982	mg/L	99.6	75	125	0.8	20	

Copper (MWMT) M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG201384													
WG201384ICV	ICV	01/12/06 10:36	II060104-7	2		1.906	mg/L	95.3	90	110			
WG201384ICB	ICB	01/12/06 10:39				U	mg/L		-0.03	0.03			
WG201123PBS	PBS	01/12/06 10:53				U	mg/L		-0.03	0.03			
L54653-02AS	AS	01/12/06 11:09	II060109-4	.5	U	.518	mg/L	103.6	75	125			
L54653-02ASD	ASD	01/12/06 11:13	II060109-4	.5	U	.519	mg/L	103.8	75	125	0.19	20	

Molybdenum (MWMT) M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG201384													
WG201384ICV	ICV	01/12/06 10:36	II060104-7	2		1.983	mg/L	99.2	90	110			
WG201384ICB	ICB	01/12/06 10:39				U	mg/L		-0.03	0.03			
WG201123PBS	PBS	01/12/06 10:53				U	mg/L		-0.03	0.03			
L54653-02AS	AS	01/12/06 11:09	II060109-4	.5	U	.533	mg/L	106.6	75	125			
L54653-02ASD	ASD	01/12/06 11:13	II060109-4	.5	U	.521	mg/L	104.2	75	125	2.28	20	

Lisbon Valley Mining Company, LLC ACZ Project ID: ***L54689***

Project ID:

Selenium (MWMT) M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG201384													
WG201384ICV	ICV	01/12/06 10:36	II060104-7	4		3.911	mg/L	97.8	90	110			
WG201384ICB	ICB	01/12/06 10:39				U	mg/L		-0.12	0.12			
WG201123PBS	PBS	01/12/06 10:53				U	mg/L		-0.12	0.12			
L54653-02AS	AS	01/12/06 11:09	II060109-4	1	.04	1.129	mg/L	108.9	75	125			
L54653-02ASD	ASD	01/12/06 11:13	II060109-4	1	.04	1.106	mg/L	106.6	75	125	2.06	20	

Uranium (MWMT) M6020 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG201389													
WG201389ICV	ICV	01/12/06 6:29	MS051114-2	.05		.05284	mg/L	105.7	90	110			
WG201389ICB	ICB	01/12/06 6:36				U	mg/L		-0.0003	0.0003			
WG201123PBS	PBS	01/12/06 7:02				U	mg/L		-0.0003	0.0003			
L54653-02AS	AS	01/12/06 7:22	MS051031-6	.025	.0008	.02481	mg/L	96	75	125			
L54653-02ASD	ASD	01/12/06 7:29	MS051031-6	.025	.0008	.02487	mg/L	96.3	75	125	0.24	20	

Zinc (MWMT) M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG201384													
WG201384ICV	ICV	01/12/06 10:36	II060104-7	2		1.906	mg/L	95.3	90	110			
WG201384ICB	ICB	01/12/06 10:39				U	mg/L		-0.03	0.03			
WG201123PBS	PBS	01/12/06 10:53				U	mg/L		-0.03	0.03			
L54653-02AS	AS	01/12/06 11:09	II060109-4	.5	.04	.561	mg/L	104.2	75	125			
L54653-02ASD	ASD	01/12/06 11:13	II060109-4	.5	.04	.543	mg/L	100.6	75	125	3.26	20	

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Extended Qualifier Report

Lisbon Valley Mining Company, LLC ACZ Project ID: ***L54689***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L54689-01	WG201123	Dry Weight	NDEP - MWMT, Sept. 19, 1990	Q9	Insufficient sample received to meet method QC requirements.
		Extraction pH	NDEP - MWMT, Sept. 19, 1990	Q9	Insufficient sample received to meet method QC requirements.
		Extraction Time	NDEP - MWMT, Sept. 19, 1990	Q9	Insufficient sample received to meet method QC requirements.
		Leachate pH	NDEP - MWMT, Sept. 19, 1990	Q9	Insufficient sample received to meet method QC requirements.
		Leachate Volume	NDEP - MWMT, Sept. 19, 1990	Q9	Insufficient sample received to meet method QC requirements.
		Particle Size over 5 cm	NDEP - MWMT, Sept. 19, 1990	Q9	Insufficient sample received to meet method QC requirements.
		Retained Moisture	NDEP - MWMT, Sept. 19, 1990	Q9	Insufficient sample received to meet method QC requirements.
L54689-02	WG201123	Dry Weight	NDEP - MWMT, Sept. 19, 1990	Q9	Insufficient sample received to meet method QC requirements.
		Extraction pH	NDEP - MWMT, Sept. 19, 1990	Q9	Insufficient sample received to meet method QC requirements.
		Extraction Time	NDEP - MWMT, Sept. 19, 1990	Q9	Insufficient sample received to meet method QC requirements.
		Leachate pH	NDEP - MWMT, Sept. 19, 1990	Q9	Insufficient sample received to meet method QC requirements.
		Leachate Volume	NDEP - MWMT, Sept. 19, 1990	Q9	Insufficient sample received to meet method QC requirements.
		Particle Size over 5 cm	NDEP - MWMT, Sept. 19, 1990	Q9	Insufficient sample received to meet method QC requirements.
		Retained Moisture	NDEP - MWMT, Sept. 19, 1990	Q9	Insufficient sample received to meet method QC requirements.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Certification Qualifiers

Lisbon Valley Mining Company, LLC ACZ Project ID: ***L54689***

No certification qualifiers associated with this analysis

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

Lisbon Valley Mining Company, LLC

ACZ Project ID: L54689
Date Received: 12/22/2005
Received By:
Date Printed: 12/22/2005

Receipt Verification

	YES	NO	NA
1) Does this project require special handling procedures such as CLP protocol?			X
2) Are the custody seals on the cooler intact?			X
3) Are the custody seals on the sample containers intact?			X
4) Is there a Chain of Custody or other directive shipping papers present?	X		
5) Is the Chain of Custody complete?	X		
6) Is the Chain of Custody in agreement with the samples received?	X		
7) Is there enough sample for all requested analyses?	X		
8) Are all samples within holding times for requested analyses?	X		
9) Were all sample containers received intact?	X		
10) Are the temperature blanks present?			X
11) Are the trip blanks (VOA and/or Cyanide) present?			X
12) Are samples requiring no headspace, headspace free?			X
13) Do the samples that require a Foreign Soils Permit have one?			X

Exceptions: If you answered no to any of the above questions, please describe

N/A

Contact (For any discrepancies, the client must be contacted)

N/A

Shipping Containers

Cooler Id		Temp (°C)	Rad (µR/hr)
BOX		16.5	15

Client must contact ACZ Project Manager if analysis should not proceed for samples received outside of thermal preservation acceptance criteria.

Notes

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

Lisbon Valley Mining Company, LLC

ACZ Project ID: L54689
Date Received: 12/22/2005
Received By:

Sample Container Preservation

SAMPLE	CLIENT ID	R < 2	G < 2	Y < 2	YG< 2	B < 2	BL< 2	O < 2	T >12	P >12	N/A	RAD	ID
L54689-01	CENT. 11-13										X		
L54689-02	CENT. 14										X		

Sample Container Preservation Legend

Abbreviation	Description	Container Type	Preservative/Limits
R	Raw/Nitric	RED	pH must be < 2
B	Filtered/Sulfuric	BLUE	pH must be < 2
BL	Filtered/Nitric	BLACK	pH must be < 2
G	Filtered/Nitric	GREEN	pH must be < 2
O	Raw/Sulfuric	ORANGE	pH must be < 2
P	Raw/NaOH	PURPLE	pH must be > 12
T	Raw/NaOH Zinc Acetate	TAN	pH must be > 12
Y	Raw/Sulfuric	YELLOW	pH must be < 2
YG	Raw/Sulfuric	YELLOW GLASS	pH must be < 2
N/A	No preservative needed	Not applicable	
RAD	Gamma/Beta dose rate	Not applicable	must be < 250 µR/hr

Sample IDs Reviewed By: _____

L54689

Lisbon Valley Mining Co.	**Chain of Custody Record**
P.O. Box 248 **920 S. County Rd. 313** **La Sal, Utah 84530** **Phone: (435) 686-9950**	**Send report with laboratory QA to:** **P.O. Box 248** **La Sal, Utah 84530**

Lisbon Valley Copper Project

ANALYSES

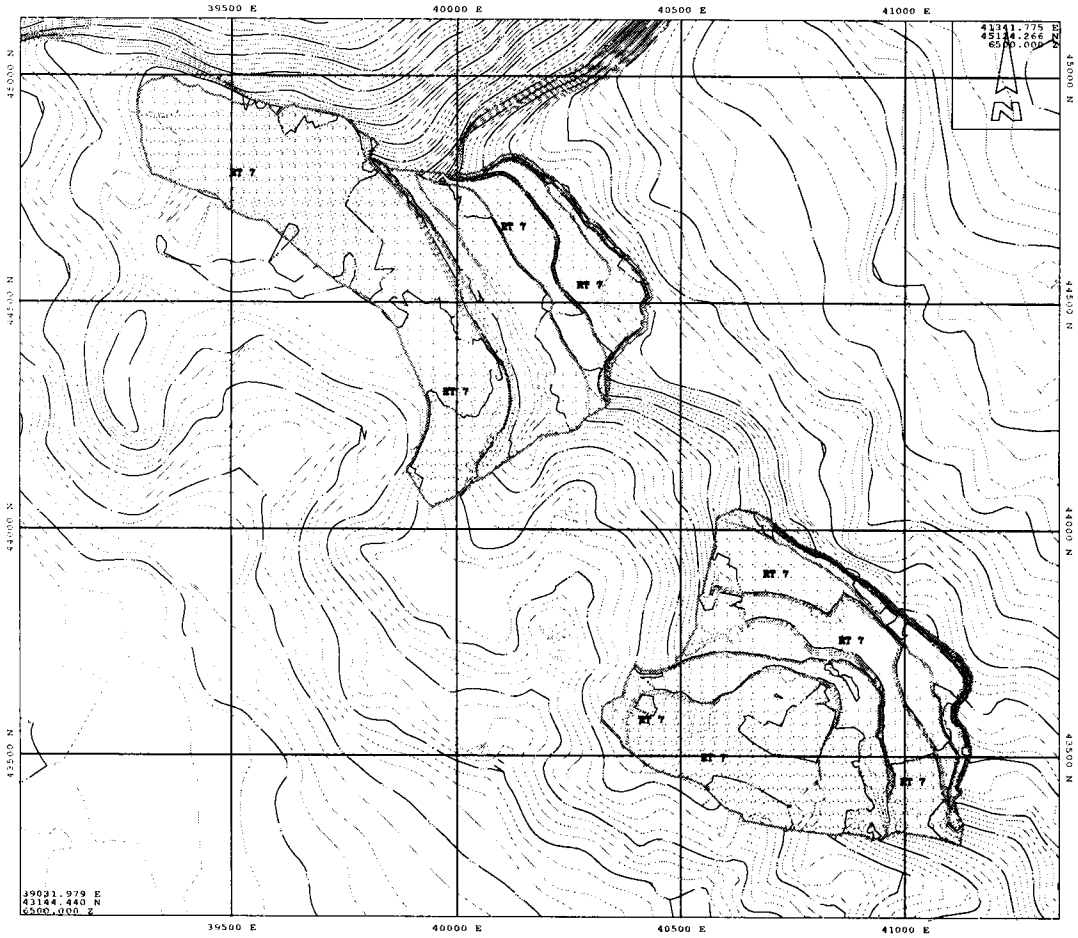
ACZ Laboratories, Inc.
2773 Downhill Drive
Steamboat Springs, CO
(970) 879-6590

SAMPLE NUMBER	DATE	TIME	MWMP	Dissolved metals	Ammonia as N	Total uranium	Total alkalinity & TSS	Radiochemistry [2]	pH & conductivity [3]	Number of Containers
Cent.11-13	12/16/2005	AM	x							
Cent.14	12/16/2005	AM	x							

Remarks / Comments

Sampled By: Lantz M Indergard		Total Number of Containers	1
Sampler's Signature		Contact Person: Lantz M Indergard Phone: (435) 686-9950 ext. 226 Fax: (435) 686-2223	
Relinquished By:	Date / Time:	Received By: RJE	Date / Time: 12-22-05 / 13100
	12-19-05 9:00		

Method of Shipment:
UPS



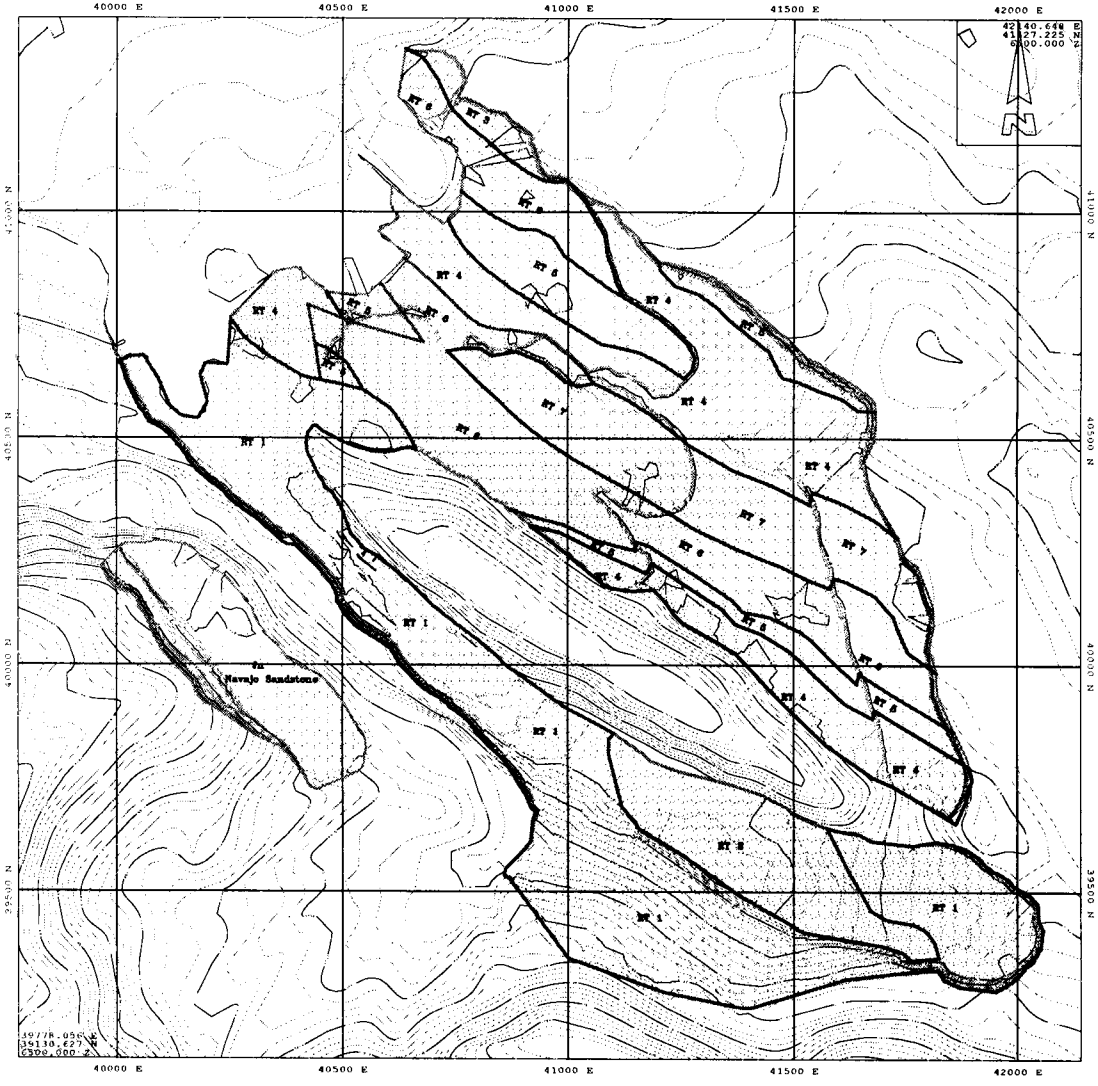
Lisbon Valley Mining Co., LLC

2005

Sentinel Pits

Geologic Map

Scale:1:3200
Date:26-Jan-2006
Project:RDH
Drawn By:RDH
Checked:
Approved:
Drawing No.



Lisbon Valley Mining Co., LLC	
2005 Centennial Pit Geologic Map	Scale: 1:3200 Date: 26-Jan-2006 Project: RDH Drawn By: RDH Checked: Approved: Drawing No.

This page is a reference page used to track documents internally for the Division of Oil, Gas and Mining

Mine Permit Number M0370088 Mine Name Lisbon Valley
Operator Lisbon Valley Date April 06, 1996
TO _____ FROM _____

__CONFIDENTIAL __BOND CLOSURE __LARGE MAPS X EXPANDABLE
__MULTIPUL DOCUMENT TRACKING SHEET __NEW APPROVED NOI
__AMENDMENT _OTHER_____

Description YEAR-Record Number

__NOI X Incoming __Outgoing __Internal __Superceded

2005 Wast Rock Monitoring Report

___NOI __Incoming __Outgoing __Internal __Superceded

__NOI __Incoming __Outgoing __Internal __Superceded

__NOI __Incoming __Outgoing __Internal __Superceded

__TEXT/ 81/2 X 11 MAP PAGES __11 X 17 MAPS __LARGE MAP

COMMENTS: _____

CC: _____